

22. *The Chairman.*] Do you not think it would be preferable to have the timber estimated by an officer of the Department?—Where there is a large quantity of timber in a district like Southland, or your own district, I think so.

23. Is not even a competent man when employed by a private person likely to have an unconscious bias?—He will not overestimate.

24. In regard to the quantities of timber shown in the 1909 return, have you much confidence in those figures?—Necessarily they are only approximate.

25. Have you had any actual experience in measuring and estimating timber?—No, not while I was District Surveyor.

26. *Mr. Adams.*] Do you think the estimates are under or over the mark?—I should say they were underestimated. If we estimated 5,000 ft. in a bush we would write it down to 4,000 ft.

27. *Dr. Cockayne.*] We had an estimate of so-many million feet of timber in connection with a certain kind of tree which it was stated grew at Stewart Island but which does not exist there at all. How would you account for that mistake?—It might be considered to be there, and so it would be entered accordingly.

28. *The Chairman.*] Then these figures are useless because they are only guesswork?—They are not too reliable.

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EDWARD O'NEILL sworn and examined. (No. 11.)

1. *The Chairman.*] You are the Crown Lands Ranger for Otago?—Yes. I have been sixteen years in the Government service. Formerly I was a farmer. I have had no experience in saw-milling.

2. What is the method followed when a miller wishes to obtain an area for milling?—He makes application in the usual way, and is instructed to mark off his area in such a way that it can be easily picked out. In the last case the Commissioner insisted on a proper survey being made by the applicant, and the survey was made by a surveyor and not by an officer of the Department.

3. Is that the only case in which a proper survey has been made?—Yes. Most of our bush land has already been surveyed for settlement purposes, and the boundaries are accepted.

4. In this case who makes the estimate of the timber on the land?—I have done so so far.

5. What is your method?—By taking a line through the section guided by prismatic compass, half a chain each side of my track. I estimate each tree within that given area. Perhaps 5 per cent. of the area is estimated, and the rest is averaged on that basis.

6. Then the figures in the 1909 return as to the quantities of timber in the Otago Land District have not been arrived at in the way you state, by measuring off?—Not all through. A lot of that country has not been surveyed.

7. So that any estimate of timber in that place must be only approximate?—Yes.

8. What method do you adopt to get the superficial contents of a tree?—Get the circumference; deduct one-quarter to make a square log; then make your calculation, and take off 33 per cent. In my opinion there is not too much taken off.

9. What is that 33 per cent. supposed to cover?—Only bark and saw-cuts.

10. How do you arrive at the height of a tree?—I take a 10 ft. stick, and try to get my eye into it; but we never measure the trees by getting up them.

11. Do you ever use the Abney level?—No.

12. What is the greatest amount of red-pine which has come off an acre within your knowledge?—The highest for mixed timber was 18,000 ft.

13. How many sawmills are in operation here?—Eleven, employing an average of ten hands each.

14. Can you suggest any improvements regarding the Timber Regulations under the Land Act?—No. The royalty might be increased from 6d., and I think that is low.

15. Are the sawmillers satisfied with the regulations?—They have never made any complaint.

16. Has it come under your notice that scenic reserves have been made in unsuitable places, or where the land is valuable for settlement? We have had complaints from the settlers, but there is no ground for them. Quite recently there was a complaint from Catlin's asking that two reserves should be cut up for settlement, but I feel satisfied that it was the opossum-hunting that induced those people to make the application. Since the restrictions have been removed from the opossums there has been a big run on them by hunters, who are making a lot of money catching those animals.

17. Do you think the opossums are doing damage to the native bush?—I believe so.

18. Have you seen them damaging the trees?—No, but many men have come to the conclusion that they are destroying some of the younger bush-plants. I have reported on the matter recently.

19. Do you know whether the deer are coming down from the highlands and interfering with the farms?—Yes, they are. I have had to go into that matter, and have reported about it, especially with regard to the Rankleburn Forest.

20. Is there any other place where the same trouble has occurred?—No. They have been coming down on to the pastoral country at Morven Hills, but I do not think the damage there is very noticeable.

21. *Dr. Cockayne.*] Do they damage the ground crops on the Hawea Flat?—I have never heard any complaints about that place.

22. *The Chairman.*] I suppose it would be a very expensive matter to fence against the deer?—Yes. I made an estimate of a fence which ran into £700.

23. *Dr. Cockayne.*] Do you know of any deer-country which is not sheep-country?—No. The deer always come down to the lowest possible country in the winter.